

REMARKS

Claims 1 to 47 are pending. Claims 2, 8, 41 and 45-47 were previously canceled. Claim 17 has been amended by this response; no claims have been withdrawn from consideration, canceled or added. Reconsideration and reexamination of the application is requested.

A. Objections to the Claims

Claim 17 was objected to for depending from cancelled claim 2 and claims 18 and 19 were objected to because of their dependency on claim 17. Claim 17 has been amended so as to depend from claim 1 thereby rendering the objection to claims 17 – 19 moot. Withdrawal of the objection to these claims is requested.

B. Rejections Under 35 U.S.C. §103

1. Summary of the Rejections.

Claims 1, 3-7, 11, 13-15, 20-27, 30-37, 40 and 42-45 were rejected under 35 U.S.C. §103(a) as being unpatentable over PCT Publication No. WO 98/32539 (Joseph '539) in view of U.S. Patent No. 5,143,294 (Lintvedt). Claims 9, 10, 12 and 17-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Joseph '539 in view of Lintvedt and further in view of PCT Publication No. WO 02/085533 (Joseph '533). Claims 16, 28 and 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Joseph '539 in view of Lintvedt and further in view of U.S. Patent No. 6,595,441 (Petric et al.). Claims 38 and 39 were rejected under 35 U.S.C. §103(a) as being unpatentable over Joseph '539 in view of Lintvedt and further in view of U.S. Patent No. 5,421,489 (Holzner et al.). These rejections are respectfully traversed.

Each of the rejections under 35 U.S.C. §103(a) relies upon the combination of Joseph '539 in view of Lintvedt. According to the Patent Office (pages 3-4 of the Office action):

Regarding claim 1, Joseph et al. '39 shows a liquid supply assembly (Fig. 6, 12) for use with a gravity-fed spray gun (Fig. 6, 1) comprising a reservoir (12) for a liquid to be sprayed comprising a liner (Fig. 5, 13) which having a first end, a second end spaced from the first end, a side wall extending from the first end to the second end, a base at the second end, and an opening defined by the first end, wherein the liner is able to stand on its own, unsupported (page 9, lines 3-4), a lid (Fig. 4, 15) configured to fit within the opening in the liner, the lid having a central opening (16); a cap member (20) positioned over the lid, the cap member having a spout (Fig. 1, 14) providing a fluid outlet

communicating with the liner, the spout (Fig. 4, 17) being connectable to a spray gun and wherein the opening in the lid is oversize relative to the spout, an outer container for supporting the liner (12), wherein the cap member is releasably secured (20) to the reservoir (12), and a marginal edge of the opening in the lid (15) is spaced inwardly from the side wall at the first end of the liner, and the reservoir can be detached from the cap member (20) for adding fluid to the reservoir through the opening in the lid.

Joseph et al. '39 does not teach the cap member having a spout providing a fluid outlet communicating with the liner and wherein the opening in the lid is oversize relative to the spout.

However, figure 2 of Lintvedt et al. teaches the cap member having a spout (Fig. 1, 14) providing a fluid outlet communicating with the liner and wherein the opening in the lid is oversize relative to the spout (Figure 2 -- as shown the spout 14 fits inside the lid 22 via the opening 24 and therefore the opening 24 is oversize relative to the spout).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have motivation to modify the cap member of Joseph et al. with the cap member of Lintvedt et al. to for a better seal (col. 3, lines 39-49).

During the personal interview the Examiners confirmed that the rejection of Applicants' claims was based on replacing lid 15 (with central aperture 16 and connector tube 17) and collar 20 (referred to by the Patent Office as a "cap member") in Joseph '539 with plug 22 having central aperture 24, sealing cap 26, and dip tube 14 in Lintvedt. The Patent Office equated Lintvedt's plug 22 with central aperture 24 to Applicants' claimed "lid having a central opening." The Patent Office also equated Lintvedt's sealing cap 26 and dip tube 14 to Applicants' claimed "cap member having a spout." Applicants appreciate the Patent Office clarifying the basis for the claim rejections and invite the Patent Office to correct the foregoing description if it is in any way incorrect.

2. Summary of Applicants' Response.

For at least the following reasons, the Patent Office's proposed combination of Joseph '539 and Lintvedt fails to provide a *prima facie* case of obviousness: (1) the asserted rationale for combining Joseph '539 and Lintvedt has no basis; (2) combining Joseph '539 and Lintvedt renders Joseph '539 unsatisfactory for its intended purpose; and (3) combining Joseph '539 and

Lintvedt changes the principle of operation in Joseph '539. Moreover, even if Joseph '539 and Lintvedt were combined, Applicants' claims would not be reached.

3. The Asserted Rationale for Combining Joseph '539 and Lintvedt Has No Basis.

According to the Patent Office:

[I]t would have been obvious to one of ordinary skill in the art at the time of the invention to have motivation to modify the cap member of Joseph et al. with the cap member of Lintvedt et al. to for [m] a better seal (col. 3, lines 39-49).

Column 3, lines 39-49 cited by the Patent Office, describes how screwing sealing cap 26 onto container 20 forces plug 22 against the walls of the opening in container 20 and dip tube 14, so that container 20 can be sealed before placing it into cup 16 of the spray gun. Thus, the Patent Office asserts that, in Lintvedt, the combination of sealing cap 26, plug 22, and dip tube 14 forms a "better seal" to container 20 than Joseph 539's combination of lid 15 and collar 20 forms to container 12 and liner 13. For several reasons, there is no basis for this assertion.

First, nothing suggests that the seal formed by lid 15 and collar 20 to container 12 and liner 13 in Joseph '539 is inadequate or needs to be improved. Joseph '539 states that "[t]he lid [15] is held firmly in place on the container 12 by an annular collar 20 which screws onto the container, on top of the lid"¹ and "the collar 20 is screwed down tightly to hold the lid [15] in position."²

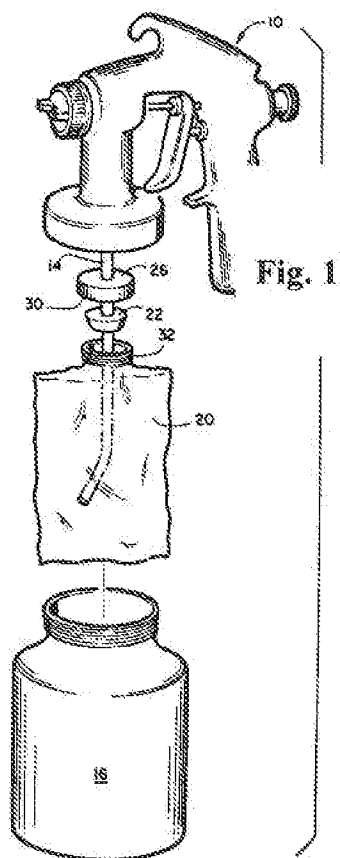
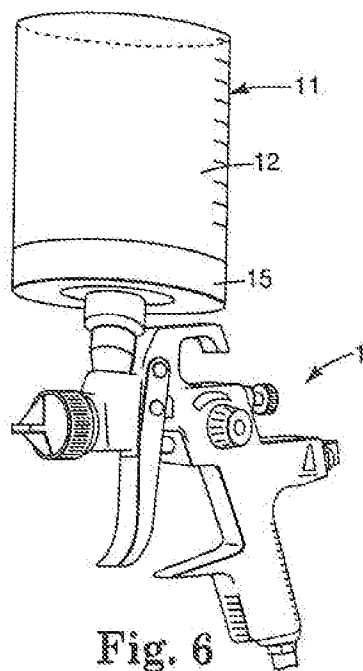
Second, without an excellent seal being formed between lid 15 / collar 20 and container 12 / liner 13 in Joseph '539, the operation of the spray apparatus would be compromised. As explained by Joseph '539, "[a]s paint is removed from within the liner 13, the sides of the liner collapse as a result of decreased pressure within the liner."³ In the absence of a robust seal, air or paint leaking from liner 13 would prevent the pressure inside the liner from decreasing and the liner from collapsing. Thus, Joseph '539 already needs to form an excellent seal between lid 15 / collar 20 and container 12 / liner 13 and nothing suggests that the arrangement in Lintvedt would form a better seal as contended by the Patent Office.

¹ Page 8, lines 21-23.

² Page 9, lines 27-28.

³ Page 10, lines 4-6.

Third, Joseph '539 has *more demanding* requirements for a seal than Lintvedt and so, if anything, one would expect the seal formed in Joseph '539 to be superior to the seal formed in Lintvedt. The normal orientation of the Joseph '539 spray gun during use is illustrated in Fig. 6, reproduced below. Container 12 is positioned *above* lid 15; without a robust seal between lid 15 / collar 20 and container 12 / liner 13, paint would leak from the container. On the other hand, the normal use orientation of the Lintvedt spray gun places container 20 *below* sealing cap 26 and plug 22 (see Fig. 1, reproduced below). Thus, based on their normal use orientations, Joseph '539 would be more concerned about paint leakage than would Lintvedt and, therefore, Joseph '539 would need to form a better seal than Lintvedt. Joseph '539 has *more demanding* requirements for a seal than Lintvedt.



Given the existing need in Joseph '539 to form an excellent seal so as to allow liner 13 to collapse during use and to prevent paint leaking from the container in its normal inverted

orientation during use, there is nothing to support the Patent Office's conclusion that "it would have been obvious to one of ordinary skill in the art at the time of the invention to have motivation to modify the cap member of Joseph et al. with the cap member of Lintvedt et al. to for[m] a better seal."

4. Combining Joseph '539 and Lintvedt Renders Joseph '539 Unsatisfactory for Its Intended Purpose.

It is well-established that "[i]f [the] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification."⁴ The Patent Office's suggested combination of Joseph '539 and Lintvedt would render Joseph '539 unsatisfactory for its intended purpose.

Joseph '539 discloses a paint pot 11 that is intended for use with a gravity-fed spray gun⁵. The normal orientation of the spray gun places paint pot 11 (comprising container 12 and liner 13) *above* the spray gun (i.e., in an inverted orientation). See Fig. 6, reproduced above on page 11. It will be readily understood that paint is withdrawn from paint pot 11 through lid 15 by way of connector tube 17.

Replacing lid 15 and connector tube 17 in Joseph '539 with plug 22 and dip tube 14 from Lintvedt, as proposed by the Patent Office, results in a modified paint pot in which paint must be withdrawn from the pot through the dip tube. In Fig. 2, (reproduced below) Lintvedt clearly shows that dip tube 14 extends nearly to the bottom of container 20.

⁴ See, Manual of Patent Examining Procedure §2143.01(V).

⁵ Paint pot 11 can be used on the spray gun of Fig. 1 (see page 8, lines 8-10) and Fig. 1 illustrates a typical gravity-fed spray gun (see page 7, lines 12-13).

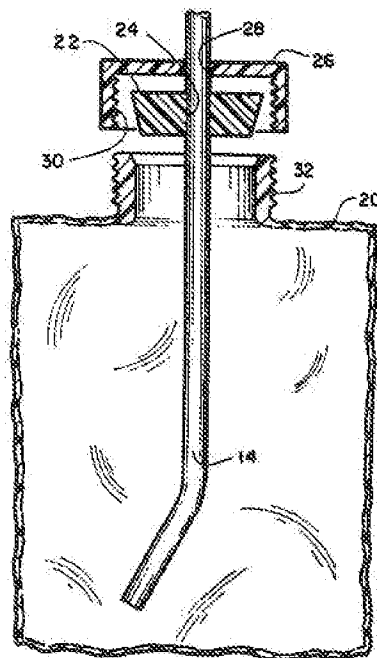


FIGURE 2

Modifying Joseph '539 by providing a dip tube to withdraw paint from paint pot 11 would render Joseph '539 unsatisfactory for its intended purpose because, in an inverted orientation, very little paint could be sprayed before the level of the paint in paint pot 11 fell below the end of the dip tube. Most of the paint in paint pot 11 would not be sprayed; paint pot 11 would remain essentially full. Since this is clearly contrary to the intended purpose of Joseph '539 and would render Joseph '539 unsatisfactory for its intended purpose, one of ordinary skill in the art at the time of the invention would not have combined Joseph '539 and Lintvedt in the manner suggested by the Patent Office.

5. Combining Joseph '539 and Lintvedt Changes the Principle of Operation in Joseph '539.

It is equally well-established that "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."⁶ The

⁶ See, Manual of Patent Examining Procedure §2143.01(VI).

Patent Office's suggested combination of Joseph '539 and Lintvedt would substantially alter the basic principle by which the Joseph '539 spray device operates.

As explained below, liner 13 in Joseph '539 collapses during normal use:

As paint is removed from within the liner 13, the sides of the liner collapse as a result of decreased pressure within the liner. The base of the liner, being more rigid, retains its shape so that the liner tends to collapse in the longitudinal rather than the transverse direction thereby reducing the possibility of pockets of paint being trapped in the liner.⁷

Collapsed liner 13 is shown in Fig. 7 (reproduced below).

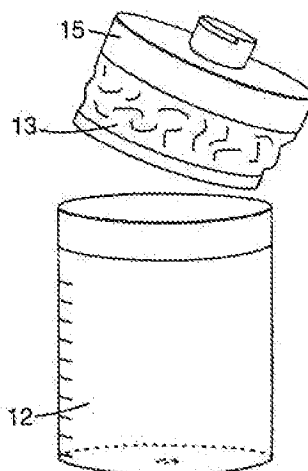


Fig. 7

The Patent Office's suggested modification of Joseph '539 includes inserting a dip tube into liner 13. As explained above, Lintvedt clearly shows that dip tube 14 extends nearly to the bottom of container 20. (See Fig. 2, reproduced on page 13.) Modifying Joseph '539 to include a dip tube would change the principle of operation of Joseph '539 because the dip tube would physically interfere with the ability of the liner 13 to collapse longitudinally.

6. Even If Joseph '539 and Lintvedt were Combined, Applicants' Claims Would Not Be Reached.

Applicants' claims specify that "the reservoir can be detached from the cap member for adding fluid to the reservoir through the opening in the lid." If the Patent Office's proposed modification of Joseph '539 in view of Lintvedt were adopted, then it would be necessary to

⁷ Page 10, lines 4-8.

detach sealing cap 26 from the reservoir in Joseph '539, remove dip tube 14, and add fluid to the reservoir through central aperture 24 in plug 22 (sealing cap 26, dip tube 14, and plug 22 coming from Lintvedt). Such an approach would not be attempted by one having ordinary skill in the art because it is untenable and significantly departs from how Lintvedt intends to fill his container with fluid.

The approach is untenable for at least two reasons.

First, it requires removing dip tube 14 from plug 22 but it's unclear whether this is readily possible without first removing the plug from the container. According to Lintvedt:

when the cap is screwed onto the threads around the opening the plug is forced into the opening in the pliant container and against the dip tube sealing the container and the dip tube as an integral sealed unit.⁸

Because plug 22 is compressed against dip tube 14 once the plug is inserted into the container, there is no assurance that the dip tube could be readily removed so as to access central aperture 24 in the plug.

Second, central aperture 24 provides a relatively small diameter opening that would be impractical to use as a filling port without spilling the paint or other liquid being added to the container. In addition, dried paint could accumulate in central aperture 24 and make it difficult to reinsert dip tube 14 or to form a sealed unit as required by Lintvedt.

Furthermore, the approach for filling the container that would result from adopting the Patent Office's proposed modification of Joseph '539 in view of Lintvedt significantly departs from how Lintvedt intends to refill his container with fluid. Lintvedt's container 20 comes pre-filled,⁹ but it can be refilled:

When all of the liquid is dispensed from the pliant container, the pliant container can be removed by reversing the above sequence and be refilled with a like liquid or discarded.¹⁰

The "above sequence" refers to the assembly process described at column 1, line 65 – column 2, line 14 and includes the following steps:

1. Remove the sealing cap from the pliant container;

⁸ Column 2, lines 9-12.

⁹ See column 3, lines 55-56 referring to the "pre-filled pliant container 20."

¹⁰ Column 2, lines 20-23.

2. Provide a similar cap with a central opening for the dip tube to pass through;
3. Place a resilient plug between the opening in the pliant container and the inside of the screw cap, the plug having a central opening through which the dip tube can pass;
4. Insert the dip tube through the central openings in the cap and the plug; and
5. Screw the cap onto the threads around opening in the pliant container to force the plug into the opening and against the dip tube to seal the container and the dip tube.

Thus, even Lintvedt does not refill container 20 through central aperture 24 in plug 22. Instead, Lintvedt disassembles the entire unit so that the container can be refilled through the opening in the top of the container.

Because refilling container 20 through central aperture 24 in plug 22 is untenable and significantly departs from how Lintvedt intends for his container to be filled with fluid, this approach would *not* be attempted by one having ordinary skill in the art. Accordingly, the requirement in Applicants' claims that "the reservoir can be detached from the cap member for adding fluid to the reservoir through the opening in the lid" would not be reached even if Joseph '539 and Lintvedt were combined in the manner proposed by the Patent Office.

7. Rejections of Other Claims.

Since the foregoing comments apply to all of the rejected claims, further discussion of the Patent Office's rejections that rely on Joseph '533, Petrie et al. and Holzner et al. is unnecessary at this time.

D. Summary and Conclusion

Applicants submit that the application is in condition for allowance and respectfully request early and favorable reconsideration and reexamination of the same. If the Examiner has any continuing questions or concerns regarding the application, he is encouraged to directly contact Applicants' undersigned representative at the telephone number shown below.

Respectfully submitted,

September 16, 2009

Date

By: Steven E. Skolnick

Steven E. Skolnick, Reg. No.: 33,789

Telephone No.: 651-736-6935

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833